



Empowered lives.
Resilient nations.



Reducing UPOPs and Mercury Releases from The Health Sector in Africa

Mercury & Minamata

UNDP

**Istanbul Regional Hub for
Europe and the CIS**

**Key Plaza, Abide-i Hürriyet Cd.
İstiklal Sk. No/11, Şişli, 34381**

İstanbul, Turkey

Email: XXX@undp.org

Tel: +90 xxxxxx



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET



Mercury & Minamata

► Objectives

- Review the Minamata Convention on Mercury and specify the requirements for mercury elimination in health care settings
- Describe the role of the health sector in the adoption and implementation of the Minamata Convention on Mercury
- Identify resources to assist Ministries of Health with implementation



Minamata Convention on Mercury

- ▶ Minamata Convention on Mercury was finalized for signature in Kumamoto, Japan in October 2013
- ▶ Governments made a commitment to protect human health from anthropogenic emissions and releases of mercury and mercury compounds.
<http://www.mercuryconvention.org/Convention>
 - 128 countries signed: all here
 - 35 countries ratified: Madagascar, Zambia
- ▶ *Preamble: “Recognizing that mercury is a chemical of global concern owing to its long-range atmospheric transport, its persistence in the environment once anthropogenically introduced, its ability to bioaccumulate in ecosystems and its significant negative effects on human health and the environment”*



Mercury (Hg)– a potent neurotoxicant

Health Effects:

- **Acute exposure** to high levels of elemental Hg
 - tremors, slowed motor nerve functions, ataxia (gait disturbance) memory loss
- **Acute inhalation** of high amounts of elemental Hg
 - chest pains, acute renal failure, shortness of breath
- **Acute ingestion** of inorganic Hg
 - nausea, vomiting, abdominal pains
- **Chronic exposure** to inorganic Hg
 - kidney damage





Minamata Disease

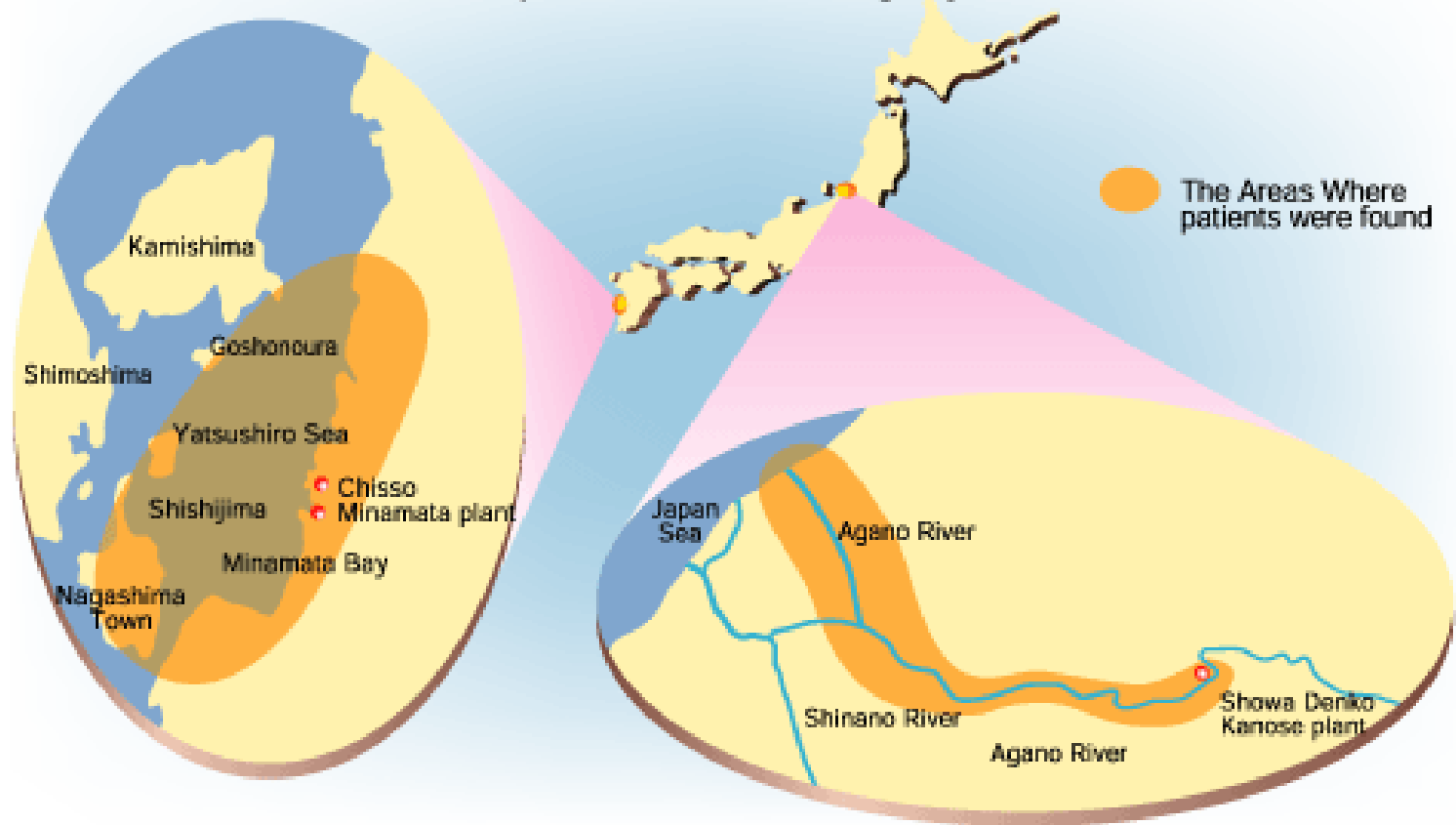




Minamata, Japan

areas with outbreak of Minamata disease

source: "Our Intensive Efforts to Overcome the Tragic History of Minamata Disease 1999",
Environmental Health Department, Environment Agency





Minamata Convention

- ▶ The protection of human health is at the core of the Minamata Convention, whose objective (Article 1):
 - “is to protect the human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds”.
 - The Convention sets a phase-out date of 2020 for the *manufacture, import and export* of mercury thermometers and sphygmomanometers.

The role of ministries of public health and WHO in supporting the implementation of the Convention, including actions to be taken within the health sector, was further affirmed by the Sixty-seventh World Health Assembly in resolution WHA67.11.1



Minamata – dental amalgam

- ▶ Each Party shall take measures for the mercury-added products listed in Part II of Annex A in accordance with the provisions set out therein.
- ▶ Measures to be taken by a Party to phase down the use of dental amalgam shall take into account the Party's domestic circumstances and relevant international guidance and shall include two or more of the measures from the following list:
 - Setting national objectives aiming at dental caries prevention and health promotion, thereby minimizing the need for dental restoration;
 - Promoting the use of cost-effective and clinically effective mercury-free alternatives for dental restoration; effective mercury-free alternatives for dental restoration;



Minamata – dental amalgam (cont.)

- Encouraging representative professional organizations and dental schools to educate and train dental professionals and students on the use of mercury-free dental restoration alternatives and on promoting best management practices;
- Discouraging insurance policies and programmes that favour dental amalgam use over mercury-free dental restoration;
- Restricting the use of dental amalgam to its encapsulated form;
- Promoting the use of best environmental practices in dental facilities to reduce releases of mercury and mercury compounds to water and land.



Minamata – other provisions

Selected provisions

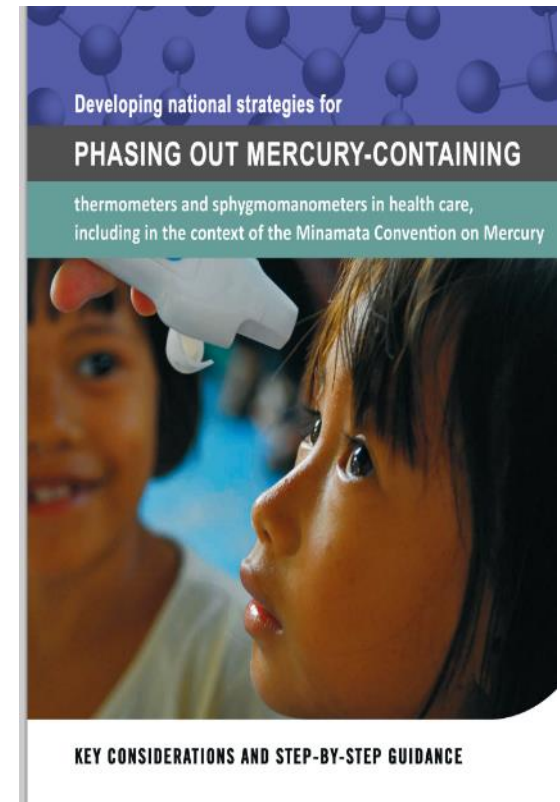
- ▶ Each Party that has artisanal and small-scale gold mining and processing subject to this Article within its territory shall take steps to reduce, and where feasible eliminate, the use of mercury and mercury compounds in, and the emissions and releases to the environment of mercury from, such mining and processing.
- ▶ Phase out by 2020:
 - Cosmetics (with mercury content above 1ppm), including skin lightening soaps and creams, and not including eye area cosmetics where mercury is used as a preservative and no effective and safe substitute preservatives are available
 - Pesticides, biocides and topical antiseptics
 - Batteries, except for button zinc silver oxide batteries with a mercury content < 2% and button zinc air batteries with a mercury content < 2%
 - Compact fluorescent lamps (CFLs) for general lighting purposes that are ≤ 30 watts with a mercury content exceeding 5 mg per lamp burner



WHO guidance: developing a national strategies to phase out mercury thermometers and sphygmomanometers

Scope and purpose:

- ▶ Address phasing out of mercury containing thermometers and sphygmomanometers in health care, including in the context of the Convention
- ▶ Facilitate development of health-system-wide approaches, building on successes and good experiences at the level of individual institutions
- ▶ Provide suggested process (model), highlighting at each step specific issues that may warrant greater consideration depending on the national context



http://www.who.int/ipcs/assessment/public_health/WHOGuidanceReportonMercury2015.pdf?ua=1&ua=1



Step 1: Develop a stakeholder engagement strategy

- ▶ Management and oversight arrangements for the development and implementation of the strategy and interventions
- ▶ Identification of stakeholder groups needed to support roll-out of the initiative
- ▶ Establishment of process for engaging stakeholders (several of whom may not be the same) in strategy development and implementation





Step 2: Situation assessment and inventory

- ▶ Number/quantity of medical devices requiring replacement or substitution
- ▶ Availability of mercury-free devices and supporting services e.g. maintenance, validation, calibration
- ▶ Volume of waste material to be collected, stored and disposed of
- ▶ Capacity to support phase-out activities and identification of gaps, including for safe collection, storage, and environmentally sound disposal
- ▶ Priority areas (e.g. locations, facilities) to be targeted for initial activities
- ▶ Costs associated with potential phase-out scenarios
- ▶ Recommendations on available options for implementation of phase-out activities



Step 3: Strategy development and implementation

- ▶ Definition of specific interventions such as:
 - Proper clean-up and storage procedures,
 - Packaging in sealed primary and secondary containers
 - Provide safe storage area which is labelled and vented to the outside
 - Provide safe collection, transport, treatment and environmentally sound disposal of waste
 - Develop and conduct an education program on safe handling of mercury-containing waste
- ▶ Agreement reached on roles and responsibilities for delivery of the above
- ▶ Establishment of monitoring framework for reporting on delivery of interventions and any unforeseen or unexpected issues/impacts



Step 4: Monitoring and reporting

- ▶ Monitoring of results of interventions and supporting activities
- ▶ Adjustment of strategic approach as needed taking into consideration lessons learned
- ▶ Detection and reporting, of unforeseen issues/impacts related to the implementation of measures under the strategy





Resources on Mercury

- ▶ WHO Technical Guidance on Substituting Mercury Thermometers and Sphygmomanometers
 - equivalent accuracy and comparable clinical utility

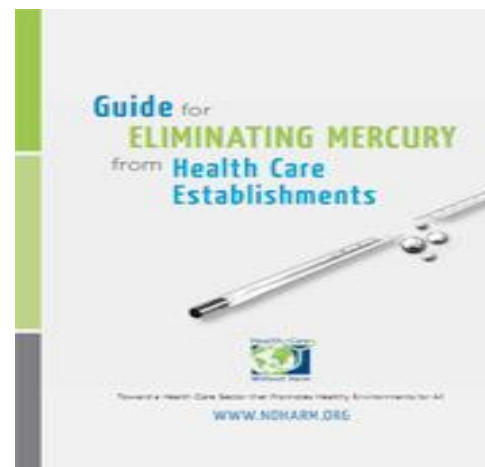


www.who.int/water_sanitation_health/publications/2011/mercury_thermometers/en/

- ▶ Guidance on Cleanup, Storage, and Transport of Health Care Mercury Waste

--Guidance document released by UNDP/WHO/HCWH Global Health Care Waste Project (GEF-funded). Training video also available.

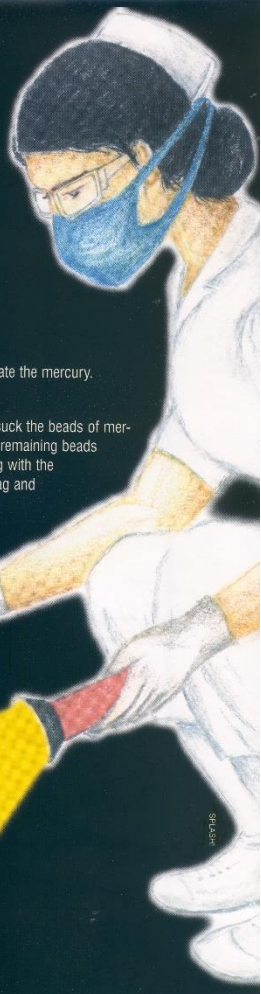
- ▶ HCWH Mercury Substitution Guide



www.mercuryfreehealthcare.org/HCWH_Mercury_Guide.html



Resources -cont



Don't take mercury lightly

MERCURY CONTAINMENT KIT
Should always be available in each ward
Gloves, face mask, eye shield, a syringe, two stiff pieces of cardboard, two plastic bags, packing tape, a flashlight and a container

IN CASE OF A MERCURY SPILL:


- ▲ **DO NOT TOUCH THE MERCURY**
Remove any jewellery/watch. Put on all protective gear. Use a flashlight to locate the mercury.
- ▲ **COLLECT THE MERCURY CAREFULLY**
Use cardboard sheets to push beads of mercury together. Use the syringe to suck the beads of mercury. Carefully place the mercury in a container with some water. Pick up any remaining beads of mercury with sticky tape and place contaminated tape in a plastic bag along with the syringe, cardboard, and gloves. Label the bag as mercury waste. Place this bag and sealed container in the second bag. Label it as mercury waste.
- ▲ **NEVER USE A VACUUM CLEANER OR BROOM**
- ▲ **DISPOSE THE MERCURY PROPERLY**
The collected mercury is hazardous waste and should either be disposed off at a hazardous waste facility or given to a mercury equipment manufacturer.

For more information on mercury and its handling, please contact:
Ratna Singh,
Toxics Link – Delhi
H2 (Ground Floor), Jungpura Extension,
New Delhi 110 014.
T: +91-(0)11-24328006, 24320711
E: info@toxicslink.org

Toxics Link
for a toxic-free world

Did you know that there is enough mercury in a typical thermometer to contaminate a lake with a surface area of about 20 acres, to the degree that fish would be unsafe to eat? Mercury is one of the most toxic substances known to mankind!

HEALTH CARE RESEARCH COLLABORATIVE




Mercury in Dental Amalgam and Resin-Based Alternatives: A Comparative Health Risk Evaluation

JUNE 2012

AUTHOR:
Serap Erdal, Ph.D.

IN COLLABORATION WITH:
Peter Orris, M.D., M.P.H.





MERCURY-FREE HEALTH CARE

An Initiative to Substitute Mercury-based Medical Devices Around the World.



www.mercuryfreehealthcare.org

Thank you! Merci!



TOWARD THE TIPPING POINT

WHO-HCWH Global Initiative to Substitute Mercury-Based Medical Devices in Health Care

A Two-Year Progress Report



In association with the UNDP GEF Global Health Care Waste Project

